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#### NEW DATA ON LEPIDOPTERA OF KURIL ISLANDS

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Summary. Four species, Caligula jonasii (Butler, 1877) (Saturniidae), Phalerodonta manleyi (Leech, 1889) (Notodontidae), Daseochaeta viridis (Leech, 1889), Ctenoplusia ichinosei (Dufay, 1965) (Noctuidae), are recorded from Russia for the first time. Distribution in Russia is confirmed for Bombyx mandarina (Moore, 1872) (Bombycidae). Eight species, Thysanoplusia intermixta (Warren, 1913), Ctenoplusia albostriata (Bremer et Grey, 1853), Gortyna basalipunctata (Graeser, 1889), Dryobotodes pryeri (Leech, 1900), Macdunnoughia hybrida (L.Ronkay, 1986) (Noctuidae), Hypostrotia cinerea (Butler, 1878), Orgyia thyellina (Butler, 1881) (Erebidae), and Bombyx mandarina (Moore, 1872) (Bombycidae) are new for the fauna of Kuril Islands, and Cosmia restituta (Walker, 1857) is new for Kunashir Island.

**Key words**: Lepidoptera, Saturniidae, Notodontidae, Erebidae, Bombycidae, Noctuidae, fauna, new records, Kunashir, Russia.

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**Резюме**. Впервые для фауны России приводятся 4 вида: *Caligula jonasii* (Butler, 1877) (Saturniidae), *Phalerodonta manleyi* (Leech, 1889) (Notodontidae), *Daseochaeta viridis* (Leech, 1889) и *Ctenoplusia ichinosei* (Dufay, 1965) (Noctuidae). Подтверждается распространение на территории России *Bombyx mandarina* (Moore, 1872) (Bombycidae). Восемь видов: *Thysanoplusia intermixta* (Warren, 1913), *Ctenoplusia albostriata* (Bremer et Grey, 1853), *Gortyna basalipunctata* (Graeser, 1889), *Dryobotodes pryeri* (Leech, 1900), *Macdunnoughia hybrida* (L.Ronkay, 1986) (Noctuidae), *Hypostrotia cinerea* (Butler, 1878), *Orgyia thyellina* (Butler, 1881) (Erebidae) и *Bombyx mandarina* (Moore, 1872) (Вотрусіdae) – впервые отмечены для фауны Курильских островов, а *Cosmia restituta* (Walker, 1857) – для острова Кунашир.

# INTRODUCTION

The fauna of Lepidoptera in the Russian Far East is studied insufficiently. In the recent years, significant additions have been made to the Lepidoptera fauna of Russia and Kuril islands (Chistyakov & Beljaev, 2016; Kononenko, 2016f, b; Rybalkin & Yakovlev, 2017; Rybalkin *et al.*, 2018, 2019). The present paper is based on the material collected by author in Kunashir Island in 2019. The specimens were collected on a light trap using a DRV-250 lamp. All the material is deposited in the private collection of S. Rybalkin.

#### NEW RECORDS

#### Family Saturniidae

#### Caligula jonasii (Butler, 1877)

Figs 1, 2

MATERIAL. **Russia**: Kunashir Island, 4.5 km NW Mendeleevo airport, Tretyakovo village, 11–22.IX 2019, 12  $\circlearrowleft$ , 3  $\circlearrowleft$ , leg. S. Rybalkin.

DISTRIBUTION. S. Korea, Japan (Hokkaido, Honshu, Shikoku, Kyushu, Tsushima, Yakaushima), Taiwan (Kim *et al.*, 2015). Here this species is firstly recorded from Russia.

#### Family Notodontidae

#### Phalerodonta manleyi (Leech, 1889)

Figs 3, 4

MATERIAL. **Russia**: Kunashir Island, 4.5 km NW Mendeleevo airport, Tretyakovo village, 11–22.IX 2019, 2  $\circlearrowleft$ , 1  $\circlearrowleft$ , leg. S. Rybalkin.

DISTRIBUTION. NE India, Vietnam, China (Shaanxi, Guangxi), Taiwan, Japan (Okinawa, Hokkaido, Honshu, Shikoku, Kyushu) (Schintlmeister, 2008). This species is recorded from Russia for the first time.

#### **Family Noctuidae**

#### Daseochaeta viridis (Leech, 1889)

Fig. 5

MATERIAL. **Russia**: Kunashir Island, 4.5 km NW Mendeleevo airport, Tretyakovo village, 7–15.IX 2019, 10 ex., leg. S. Rybalkin.

DISTRIBUTION. Japan (Hokkaido, Honshu, Shikoku, Kyushu, Yakaushima). Here this species is recorded from Russia for the first time.

## Ctenoplusia ichinosei (Dufay, 1965)

Fig. 6

MATERIAL. **Russia**: Kunashir Island, 4.5 km NW Mendeleevo airport, Tretyakovo village, 9.IX 2019, 2 ex., leg. S. Rybalkin.

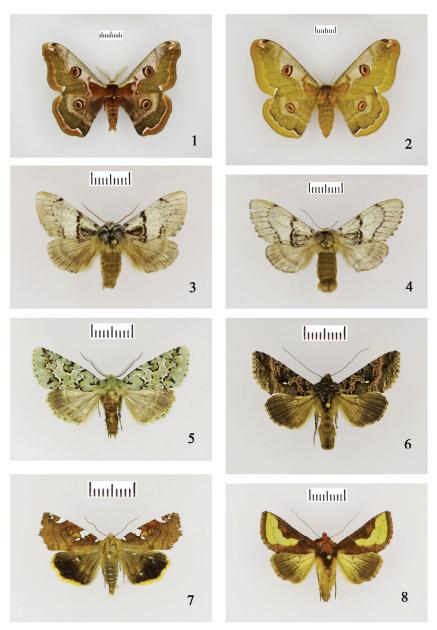
DISTRIBUTION. Korea (Cheju-Is), Japan (Honshu, Shikoku, Kyushu, Tsushima, Izu-Is, Yakushima, Amamioshima, Ishigakijima). Here it is firstly recorded from Russia.

# Cosmia restituta (Walker, 1857)

Fig. 7

MATERIAL. **Russia**: Kunashir Island, 4.5 km NW Mendeleevo airport, Tretyakovo village, 2–7.IX 2019, 4 ex., leg. S. Rybalkin.

DISTRIBUTION. Russia (Primorskii krai, Khabarovskii krai, Sakhalin, Shikotan Island), Korea, Japan (Hokkaido, Honshu, Shikoku, Kyushu), China, Taiwan (Kononenko, 2016a). Here this species is firstly recorded from Kunashir Islands.



Figs 1–8. Imago of Lepidoptera from Kunashir Island. 1 – *Caligula jonasii* (Butler, 1877),  $\circlearrowleft$ ; 2 – *Caligula jonasii* (Butler, 1877),  $\circlearrowleft$ ; 3 – *Phalerodonta manleyi* (Leech, 1889),  $\circlearrowleft$ ; 4 – *Phalerodonta manleyi* (Leech, 1889),  $\circlearrowleft$ ; 5 – *Daseochaeta viridis* (Leech, 1889),  $\circlearrowleft$ ; 6 – *Ctenoplusia ichinosei* (Dufay, 1965),  $\circlearrowleft$ ; 7 – *Cosmia restituta* (Walker, 1857),  $\circlearrowleft$ ; 8 – *Thysanoplusia intermixta* (Warren, 1913),  $\circlearrowleft$ .

#### Thysanoplusia intermixta (Warren, 1913)

Fig. 8

MATERIAL. Russia: Kunashir Island, 4.5 km NW Mendeleevo airport, Tretyakovo village, 8.IX 2019, 1 ex., leg. S. Rybalkin.

DISTRIBUTION. Russia (Primorskii krai), Korea, Japan (Hokkaido, Honshu, Shikoku, Kyushu), China, Taiwan, India, SE Asia, Sri Lanka, Canary Islands (Kononenko, 2016a). Here this species is firstly recorded from Kuril Islands.

# Ctenoplusia albostriata (Bremer et Grey, 1853)

Fig. 9

MATERIAL. Russia: Kunashir Island, 4.5 km NW Mendeleevo airport, Tretyakovo village, 9.IX 2019, 2 ex., leg. S. Rybalkin.

DISTRIBUTION. Russia (Sakhalin, Primorskii krai), Korea, Japan (Hokkaido, Honshu, Shikoku, Kyushu), China, Taiwan, SE Asia, Sri Lanka, India, Indonesia, Australia, Fiji Islands (Kononenko, 2016a). Here this species is firstly recorded from Kuril Islands.

## Gortyna basalipunctata (Graeser, 1889)

Fig. 10

MATERIAL. **Russia**: Kunashir Island, 4.5 km NW Mendeleevo airport, Tretyakovo village, 3–14.IX 2019, 4 ex., leg. S. Rybalkin.

DISTRIBUTION. Russia (Khabarovskii krai, Sakhalin, Primorskii krai), Korea, Japan (Hokkaido, Honshu, Shikoku, Kyushu), China (Kononenko, 2016a). Here it is firstly recorded from Kuril Islands.

#### Dryobotodes pryeri (Leech, 1900)

Fig. 11

MATERIAL. **Russia**: Kunashir Island, 4.5 km NW Mendeleevo airport, Tretyakovo village, 1–8.IX 2019, 2 ex., leg. S. Rybalkin.

DISTRIBUTION. Russia (Khabarovskii krai, Primorskii krai), Korea, Japan (Hokkaido, Honshu, Shikoku, Kyushu), China (Kononenko, 2016a). Here this species is firstly recorded from Kuril Islands.

# Macdunnoughia hybrida (L.Ronkay, 1986)

Fig. 12

MATERIAL. **Russia**: Kunashir Island, 4.5 km NW Mendeleevo airport, Tretyakovo village, 9–15.IX 2019, 3 ex., leg. S. Rybalkin.

DISTRIBUTION. Russia (Khabarovskii krai, Primorskii krai), Korea, NE China (Kononenko, 2016a). Here this species is firstly recorded from Kuril Islands.

# Family Erebidae

# Hypostrotia cinerea (Butler, 1878)

Fig. 13

MATERIAL. **Russia**: Kunashir Island, 4.5 km NW Mendeleevo airport, Tretyakovo village, 13.IX 2019, 1 ex., leg. S. Rybalkin.



Figs 9–15. Imago of Lepidoptera from Kunashir Island. 9 – *Ctenoplusia albostriata* (Bremer et Grey, 1853), &; 10 – *Gortyna basalipunctata* (Graeser, 1889), &; 11 – *Dryobotodes pryeri* (Leech, 1900), &; 12 – *Macdunnoughia hybrida* (L.Ronkay, 1986), &; 13 – *Hypostrotia cinerea* (Butler, 1878), &; 14 – *Orgyia thyellina* (Butler, 1881), &; 15 – *Bombyx mandarina* (Moore, 1872), &.

DISTRIBUTION. Russia (Khabarovskii krai, Primorskii krai) Korea, Japan (Hokkaido, Honshu, Shikoku, Kyushu), China (Kononenko, 2016b), Here this species is firstly recorded from Kuril Islands.

#### Orgyia thyellina (Butler, 1881)

Fig. 14

MATERIAL. **Russia**: Kunashir Island, 4.5 km NW Mendeleevo airport, Tretyakovo village, 6–17.IX 2019, 7 ex., leg. S. Rybalkin.

DISTRIBUTION. Russia (Sakhalin) (Vertyankin, 2012; Titova, 2018), Korea, Japan (Hokkaido, Honshu, Shikoku, Kyushu), Taiwan, China. Here this species is firstly recorded from Kuril Islands.

#### Family Bombycidae

#### Bombyx mandarina (Moore, 1872)

Fig 15

MATERIAL. **Russia**: Kunashir Island, 4.5 km NW Mendeleevo airport, Tretyakovo village, 4. IX-22.IX 2019, 14 ♂, leg. S. Rybalkin.

DISTRIBUTION. Russia (?Primorskii krai), Japan, Korea, NE China (Chistyakov & Beljaev, 2016). Distribution of this species in Russia is confirmed. Here this species is firstly recorded from Kuril Islands.

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## REFERENCES

- Chistyakov, Y.A. & Beljaev, E.A. 2016. Fam. Bombycidae. P. 316–317. *In*: Anikin, V.V., Baryshnikova, S.V., Beljaev, E.A., Dubatolov, V.V., Efetov, K.A., Zolotuhin, V.V., Kovtunovich, V.N., Kozlov, M.V., Kononenko, V.S., Lvovsky, A.L., Nedoshivina, S.V., Ponomarenko, M.G., Sinev, S.Y., Streltsov, A.N., Ustjuzhanin, P. Y., Chistyakov, Y.A. & Yakovlev, R.V. 2016. *Annotated catalogue of the insects of Russian Far East. Volume II. Lepidoptera*. Dalnauka, Vladivostok. 812 pp. [In Russian]
- Kim, M.-J., Choi, S.-W. & Kim, I. 2015. *Saturnia jonasii* Butler, 1877 on Jejudo Island, a new saturnid moth of South Korea with DNA data and morphology (Lepidoptera: Saturniidae). *Zootaxa* 3946(3): 374–386. DOI: https://doi.org/10.11646/zootaxa. 3946.3.5
- Kononenko, V.S. 2016a. Fam. Noctuidae. P. 408–510. In: Anikin, V.V., Baryshnikova, S.V., Beljaev, E.A., Dubatolov, V.V., Efetov, K.A., Zolotuhin, V.V., Kovtunovich, V.N., Kozlov, M.V., Kononenko, V.S., Lvovsky, A.L., Nedoshivina, S.V., Ponomarenko, M.G., Sinev, S.Y., Streltsov, A.N., Ustjuzhanin, P. Y., Chistyakov, Y.A. & Yakovlev, R.V. 2016. Annotated catalogue of the insects of Russian Far East. Volume II. Lepidoptera. Dalnauka, Vladivostok. 812 pp. [In Russian]

- Kononenko, V.S. 2016b. Fam. Erebidae. P. 380–387. In: Anikin, V.V., Baryshnikova, S.V., Beljaev, E.A., Dubatolov, V.V., Efetov, K.A., Zolotuhin, V.V., Kovtunovich, V.N., Kozlov, M.V., Kononenko, V.S., Lvovsky, A.L., Nedoshivina, S.V., Ponomarenko, M.G., Sinev, S.Y., Streltsov, A.N., Ustjuzhanin, P. Y., Chistyakov, Y.A. & Yakovlev, R.V. 2016. Annotated catalogue of the insects of Russian Far East. Volume II. Lepidoptera. Dalnauka, Vladivostok. 812 pp. [In Russian]
- Rybalkin, S.A. & Yakovlev, R.V. 2017. New for the fauna of Kuril Islands Lepidoptera. *Far Eastern Entomologist*, 346: 13–16. DOI: https://doi.org/10.25221/fee.346.2
- Rybalkin, S.A., Yakovlev, R.V. & Benedek, B. 2018. New and little known for the fauna of Kunashir and Sakhalin Islands Lasiocampidae and Noctuoidea (Lepidoptera). *Far Eastern Entomologist*, 355: 18–22. DOI: https://doi.org/10.25221/fee.355.3
- Rybalkin, S.A., Yakovlev, R.V., Knyazev, S. A. & Beljaev, E. A. 2019. New and rare for the fauna of Kunashir island species of Noctuoidea, Drepanoidea and Geometoidea (Lepidoptera) *Far Eastern Entomologist*. 379: 33-36. DOI: 10.25221/fee.379.3
- Schintlmeister, A. 2008. *Palaearctic Macrolepidoptera. Vol. 1. Notodontidae*. Apollo Books, Stenstrup. 482 pp.
- Titova, O.L. 2018. New records of Lepidoptera (Tineidae, Crambidae, Erebidae, Nolidae, Noctuidae) from the Kholmskii Raion of Sakhalin Island, Russia, with notes on autumnal imago activity. *Euroasian entomological journal*, 17(4): 248–254 DOI: https://doi.org/10.15298/euroasentj.17.4.02
- Vertyankin, A.V. About new finds of the higher dissipated Lepidoptera (Lepidoptera: Metaheterocera) on Sakhalin. *Bulletin of the Sakhalin Museum*, 12(19): 375–378.

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